



Luxury PCs

Cutting-edge computing doesn't come cheap, but there's little a £1,750 PC can't do. We celebrate the top-end of home computing with a look at the best PCs money can buy

In recent years, PCs have become almost as common in homes as appliances such as TVs and microwave ovens. Components have become cheaper, and it's possible to pick up a basic PC for just a few hundred pounds.

However, just as a hardened film buff wouldn't want to watch *King Kong* on a portable 14" television, not all computer users will be satisfied with the cheapest systems. A budget PC is great for typing documents and browsing the web, but if your interests include video editing, 3D gaming or producing music, you'll want a more capable system. These demanding applications require a PC with plenty of power that won't stutter during that crucial edit or final 3D assault.

If you have £1,750 to spend, you can afford a premium system with all the power you'll ever need. Like luxury cars, fewer of these expensive systems are built, so they tend to be crafted with more care. This budget also allows for only the finest components to be included.

We've reviewed nine top-quality computer systems that cost £1,750 or less. Each one is

IN THIS REVIEW

Carrera Octan Ultimate CS-03
Cube 247 Aurora ST2
Evesham Axis 4400+ Fireball
Gladiator Titan 3 3800 Delux V2 (Secure System)
Hoojum Cubit5
Mesh XTreme Beast
PC Nextday Zoostorm 5-8501 Advanced PC
Scan 3XS Luxury Home PC
Watford Aries PowerXS 6444 CS-03

extremely powerful and packed full of the finest parts: the processors alone cost more than many bargain-priced systems do in their entirety. They'll take on any task and should keep you computing long after cheaper systems have been superseded.

Whether you want to edit your next Oscar-winning epic, polish hundreds of multi-megapixel digital photos or play the latest games in jaw-dropping detail, we'll help you find the perfect PC.



CHOOSING A... LUXURY PC

Spending £1,750 on a PC will guarantee that you have masses of processing power at your disposal, but not all luxury PCs are the same. Follow our guide to make sure you get a PC that's suited to your needs

Choosing a PC is usually a matter of balancing the features you need against the budget you have to spend. With £1,750 at your disposal, though, it's a different matter. A budget like this means you don't need to make compromises. You'll get a PC that does everything you need and more.

That said, the luxury PCs in this group test have different strengths. When choosing a system, it makes sense to consider the types of task you'll want to undertake most often and pick a PC that has extra power and features in the areas that count.

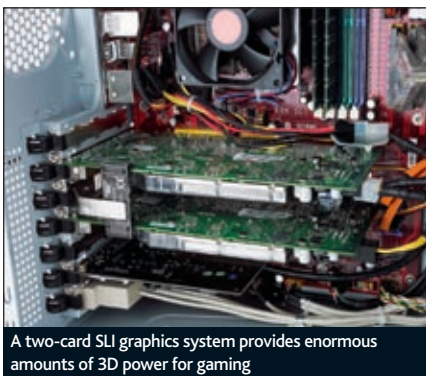
DUAL-CORE DUEL

Eight of the nine PCs in this month's test use dual-core processors. These are, in effect, two processors in one. Not all software can use the extra power they provide, but they are particularly useful for tasks such as video encoding and editing.

Although all the dual-core processors in this month's PCs are members of AMD's Athlon 64 X2 processor family, not all of them are equal. The X2 3800+, 4400+ and 4600+ run at different clock speeds and use different amounts of level 2 cache memory. In particular, the X2 4400+ uses twice as much level 2 cache memory as the 3800+ and the 4600+. This extra cache lets it hold more data in the processor itself, rather than having to fetch it continually from the main memory modules.

GRAPHIC EQUALISER

Gamers who want to play the latest games at the highest possible resolutions will need one – or preferably two – of the most recent 3D graphics cards. Two of the computers in this group, made by Carrera and PC Nextday, include a pair of nVidia graphics cards, which are linked using a technology called SLI. This divides the 3D processing between the two cards, producing more frames per second or higher levels of detail.



A two-card SLI graphics system provides enormous amounts of 3D power for gaming



▲ 20" and 21" displays can show almost 50 per cent more information than 19" models

Some of the other PCs can be upgraded with a second card. The PCs from Gladiator and Mesh can be upgraded with a second nVidia graphics card using SLI. The Cube 247 and Evesham PCs use ATI's competing CrossFire system, so you'd need to add a second ATI card instead.

ROOM TO SPARE

Many of these PCs have more than one hard disk, almost all of which use a system called RAID 0. This stripes your data across all the disks, behaving like one extremely large hard disk that runs quickly.

RAID 0 has its disadvantages, though. Most importantly, if one of the hard disks should fail, the data on all the disks is rendered useless. This makes it even more important to keep regular backups.

Gladiator's PC uses a different type of RAID to provide a more secure data storage system. Its three-disk RAID 3 system uses two disks in a fast striped array similar to RAID 0, while a third disk stores duplicate information that enables you to recover your data if one of the three hard disks fails.

MONITOR CONDITIONS

This month's PCs come with 19", 20" and 21" LCD screens. Although an inch or two may not sound like a lot, it can make a huge difference to the amount of information you can fit on your monitor. A 19" LCD monitor can display a resolution of 1,280x1,024 pixels, but 20" and 21" screens can show 1,600x1,200 pixels. This amounts to almost 50 per cent more onscreen detail. If you edit high-resolution images in a program with lots of tools, such as Photoshop, you will appreciate the extra space a 20" or 21" monitor provides.

The monitors that come with the Gladiator and Mesh systems have a widescreen aspect ratio. This is ideal for watching DVDs, and is also useful if you like to work on two documents side by side.

SPEAKERS OF THE HOUSE

When buying a PC it's often easy to focus on the graphics cards and processors and completely forget to check what kind of sound hardware is included. If you're interested in music production or gaming, it's important to choose a PC that sounds as good as it looks.

Four of the PCs in this group include dedicated, high-quality sound cards. Carrera and Cube 247 have included Creative's Sound Blaster Audigy 4, while Mesh and Scan have chosen the new Audigy X-Fi Xtreme Music card. All four provide plenty of audio inputs and outputs with low signal-to-noise ratios.

Most of the PCs also include surround-sound speaker sets. These are not as good as a set of high-quality stereo speakers for playing music, but they're great for watching DVDs in surround sound and superb for adding atmosphere to 3D games.

ARRESTING WARRANTIES

A computer system that costs £1,750 is an investment that's worth protecting, so check carefully to see what kind of warranty is included with each one. Most of the computers in this test include an onsite warranty that provides for repairs in your home if something should go wrong, but Cube 247 has included a return-to-base warranty instead. Our table on page 174 shows the length and type of warranty included with each system, as well as useful information on when you can get technical support.



▲ Many luxury PCs use several hard disks arranged in a RAID array



CARRERA Octan Ultimate CS-03



RATING ★★★★★

PRICE £1,750 inc VAT

SUPPLIER Watford Electronics 08716 661616

DETAILS www.savastore.com

Carrera's Octan looks slightly pedestrian, but it's powerful and packed with useful features.

FEATURES

The Octan has almost every feature you could expect from a luxury PC. It's got plenty of USB and FireWire ports, two optical drives and a large RAID array that uses two 250GB hard disks. The only notable absence is a memory card reader.

The 20" NEC monitor included has a native resolution of 1,600x1,200, providing plenty of room for large images. Colour accuracy is superb, and it produces smooth shading and a clean, bright white. A USB hub is built in, which is great if you like to tuck your PC case under a desk.

The Creative T7900 7.1 surround-sound speaker set is great for playing games and watching DVDs. Carrera has also included a Creative Sound Blaster Audigy 4 sound card.

PERFORMANCE

With 1GB of RAM and a fast dual-core Athlon 64 X2 4400+ processor, the Octan came a close third in our application benchmarks, scoring 158 overall. This places it behind only the two PCs equipped with a faster X2 4600+ processor.

The Octan did even better in our 3D graphics benchmarks. It managed a blistering 132.6fps in our Doom 3 test, which was less than two frames per second behind the fastest PC in the group. This 3D speed comes from a pair of nVidia GeForce 7800GT graphics cards linked by SLI. The only downside of using two cards is that it leaves less room inside the case for expansion.

VERDICT

The Octan is a great system with plenty of 2D power, amazing 3D performance and a superb 20" LCD screen. If you're looking for a great all-round PC system, this is the one to buy.



Great 3D performance; crystal-clear monitor



No memory card reader

SPECIFICATIONS AMD Athlon 64 X2 4400+, 1GB RAM, two 250GB hard disks, two 256MB nVidia GeForce 7800GT, DVD+/-RW +/-DL, DVD-ROM, 20" LCD



CUBE 247 Aurora ST2

RATING ★★

PRICE £1,750 inc VAT

SUPPLIER Cube Enterprises 08702 421179

DETAILS www.cube247.co.uk

The Aurora has a huge, striking case but is let down by its 19" monitor, limited 3D performance and weak warranty.

FEATURES

The Aurora's aluminium case with fins is one of the largest and heaviest in this group. It's huge and has quirky features, such as a tool drawer and a side door that opens automatically with a hydraulic piston. We were disappointed to find that it doesn't use its metal fins for passive cooling, though. Instead it uses several fans, making the Aurora one of the loudest PCs here.

The GNR 19" LCD allows easy height, tilt and swivel adjustment. It produces a clear, bright white, but we saw some banding in our greyscale gradient tests. Its resolution is lower than that of the 20" and 21" monitors.

The Aurora sounds good thanks to the combination of a Creative Sound Blaster Audigy 4 sound card and Creative T7900 7.1 surround-sound speakers. Disappointingly, though, this is the only PC in the group with no onsite warranty.

PERFORMANCE

The Aurora's Radeon X1800XT graphics card with 512MB of RAM is one of the more powerful ATI cards. It produced a more than playable 98.3fps in our Doom 3 test but lagged behind the two-card SLI systems. The Aurora supports CrossFire, so you could add a second ATI graphics card in the future to increase its 3D power.

Windows performance is also more than acceptable, thanks to a powerful dual-core AMD Athlon 64 X2 4400+ processor. It scored 158 overall in our application benchmarks, placing it ahead of most PCs in the group.

VERDICT

The Aurora is reasonably powerful in Windows but has only a 19" monitor and no onsite warranty. In this group only its case stands out.



CrossFire-capable; plenty of memory and USB ports



Case is noisy; no onsite warranty; 19" display

SPECIFICATIONS AMD Athlon 64 X2 4400+, 2GB RAM, two 250GB hard disks, 512MB ATI Radeon X1800XT, DVD+/-RW +/-DL, DVD-ROM, 19" LCD



EVESHAM Axis 4400+ Fireball

RATING ★★★

PRICE £1,750 inc VAT

SUPPLIER Evesham 08701 609500

DETAILS www.evesham.com

Evesham's Fireball has a great 21" display but is let down by limited 3D performance and a disappointingly small hard disk.

FEATURES

While the other manufacturers have clad their PCs in sleek metal cases, the Fireball is dressed in nothing more than Evesham's standard 'splat' case. It has plenty of room inside for expansion, but with no floppy drive or memory card reader you may need to start adding parts quite soon.

Evesham has equipped the Fireball with Windows XP Media Center Edition. The Media Center interface makes it easier to browse and enjoy music, videos and photos, but no TV tuner or remote control is included. The excessive noise produced by the Fireball's cooling fans is annoying. A two-year onsite warranty is included.

The 21" NEC display allows for easy tilt and swivel adjustments and includes a handy four-port USB hub. Its image quality is just as good as that of the smaller 20" NEC screen that comes with Carrera's system. The single 320GB hard disk should be big enough for most users but it is a little cramped compared with the huge disk arrays included in some other systems here.

PERFORMANCE

Like Cube 247's Aurora ST2, the Fireball has an Athlon 64 X2 4400+ processor and 2GB of RAM. Unsurprisingly, it produced a similar score of 157 overall in our application benchmarks.

The Fireball uses an ATI Radeon X1800 graphics card, but it has an XL version rather than the faster XT model used by Cube 247 and Watford. It scored an unimpressive 86.3fps in our Doom 3 test, beating only the tiny Hoojum PC.

VERDICT

Evesham's Fireball isn't a good choice for 3D gaming, but it has a great display and a good warranty. It's an acceptable but uninspiring buy.



21" display; Media Center software



Unimpressive 3D power

SPECIFICATIONS AMD Athlon 64 X2 4400+, 2GB RAM, 320GB hard disk, 256MB ATI Radeon X1800XL, DVD+/-RW DL, DVD-ROM, 21" LCD



GLADIATOR Titan 3 3800 Delux V2 (Secure System)

RATING ★★★★★

PRICE £1,750 inc VAT

SUPPLIER Gladiator 08456 444666

DETAILS www.gladiatorcomputers.com

The Titan 3 has an interesting RAID system and a smart case, but its performance lets it down.

FEATURES

The Titan 3 looks smart and professional thanks to its black metal Gigabyte case. Unlike most manufacturers, Gladiator has arranged three 160GB hard disks into a RAID 3 array. This makes them act like a single disk with the combined capacity of two of them, while the third provides redundancy. If a disk fails, you won't lose all your data. The disks are mounted in smart removable trays that also provide monitoring information.

A set of 2.1 Creative i-Trigue 3500 speakers is included, making the Titan good for listening to music but a little disappointing in games and DVDs that offer surround sound.

The widescreen 20" Belinea display has good viewing angles, making it suitable for watching DVDs, but its washed-out colours make it less than ideal for image editing. The Logitech keyboard and mouse are comfortable and surprisingly responsive for a wireless set.

PERFORMANCE

The Titan 3's Athlon X2 3800+ processor is one of the slowest dual-core chips in this group. It scored just 148 in our application benchmarks, placing it ahead of only the Hoojum PC and Scan's Opteron-powered system.

It performed better in our 3D benchmarks, scoring a commendable 104.7fps in Doom 3. The system supports SLI, so you can pair the lone GeForce 7800GTX graphics card with another for even better performance.

VERDICT

Gladiator's PC is fairly fast in 3D, and its RAID system is useful, but its washed-out display and poor Windows performance limit its appeal.



RAID and removable hard disk rack; smart case



Lacklustre Windows performance; no FireWire

SPECIFICATIONS AMD Athlon 64 X2 3800+, 1GB RAM, three 160GB hard disks, 256MB nVidia GeForce 7800GTX, DVD+/-RW +/-DL, 20" widescreen LCD



HOOJUM Cubit5

RATING ★★★★★

PRICE £1,750 inc VAT

SUPPLIER Scan Computers 08707 554747

DETAILS www.scan.co.uk

The Cubit5 is compact and well-built, but it struggles to keep up with the competition.

FEATURES

We were rather disappointed by the Cubit5's plain looks, but it feels well made. Its compact size makes it ideal as a media centre PC, and accordingly Hoojum has fitted it with a spacious 500GB hard disk, a digital TV tuner, a remote control and Windows XP Media Center Edition 2005. Unfortunately, the system isn't entirely unobtrusive. Although it's quieter than the Cube 247 and Evesham PCs, it's still fairly noisy.

The Cubit5 has little room for PCI cards or extra drives. The slot-loading notebook DVD writer looks slick but its DVD writing speeds are slow. It writes DVD-R discs at only 8X, for example, while other PCs here can manage 16X.

The 19" gloss-coated Sony display looks very smart but isn't particularly adjustable. Its image quality was generally excellent with a deep, rich black, vibrant colours and smooth colour transitions, but its resolution is lower than those of the 20" and 21" screens in the group.

PERFORMANCE

The Cubit5's 3.4GHz Pentium 4 processor felt distinctly underpowered compared with the dual-core Athlon chips many other PCs in the group use. The Cubit5 scored just 131 overall in our Shopper application benchmarks.

Despite being a premium PC, the Cubit5 has only a 128MB GeForce 6600 graphics card. While the PC's compact size means the most powerful graphics cards won't fit, the 6600 is distinctly underpowered and produced an unplayable 13.3fps in our Doom 3 test.

VERDICT

If you're short on space or want a Media Center PC, the Cubit5 is a reasonably attractive option. Unless you need such a compact PC, though, you can buy a faster, more expandable system.



Solid, compact design



Poor performance; few expansion options

SPECIFICATIONS 3.4GHz Intel Pentium 4 650, 1GB RAM, 500GB hard disk, 128MB nVidia GeForce 6600, DVD+/-RW DL, 19" LCD



MESH XTreme Beast

RATING ★★★★★

PRICE £1,749 inc VAT

SUPPLIER Mesh Computers 08700 464747

DETAILS www.meshcomputers.com

The XTreme Beast is powerful in Windows and has a 20" LCD monitor, but it's a little way behind the best when it comes to 3D games.

FEATURES

Behind the Beast's silver metal door lies a series of black grilles and a row of amusingly pointless illuminated speedometer-like dials. Nevertheless, the system feels solid and well built. It has plenty of internal SATA ports but few free drive bays for adding new disks. Fortunately its 400GB of storage should keep you going for some time.

The widescreen 20" Phillips flat-panel monitor is useful for watching DVDs and viewing two A4-sized documents side by side. Sadly, our greyscale and colour-transition tests revealed significant banding, and it's unsuitable for serious image-editing or design work.

The Creative T7900 7.1 surround-sound speakers and Sound Blaster X-Fi sound card are a great-sounding combination, especially for games that take advantage of eight-channel sound. A two-year onsite warranty is included.

PERFORMANCE

With one of the most powerful processors in the group and 2GB of RAM, the Beast performed exceptionally well in our application benchmarks. Its score of 177 overall was the best in the group, and narrowly ahead of the similarly equipped PC Nextday system. It ran our video-encoding test with ease, scoring an impressive 211.

With a single GeForce 7800GTX graphics card, the Beast scored a middling 103.8fps in our Doom 3 test. This could be improved by adding a second card and using them in SLI mode.

VERDICT

The Beast is very fast in Windows and reasonably powerful in 3D games. It's a decent computer for the money, but it can't quite compete with the PCs submitted by Carrera and PC Nextday.



Very powerful in Windows; solid and well built



Middling 3D performance; limited internal expansion; monitor not great

SPECIFICATIONS AMD Athlon 64 X2 4600+, 2GB RAM, two 200GB hard disks, 256MB nVidia GeForce 7800GTX, DVD+/-RW +/-DL, DVD-ROM, 20" widescreen LCD



PC NEXTDAY Zoostorm 5-8501 Advanced PC

RATING ★★★★★

PRICE £1,750 inc VAT

SUPPLIER www.pcnextday.co.uk

DETAILS www.pcnextday.co.uk

The Zoostorm is extremely powerful in Windows and 3D, but its 19" monitor is decidedly average.

FEATURES

The Zoostorm's silver fascia is sleek and shiny but the rest of the case feels a bit plasticky. The illuminated 'sound pressure' dial, which reacts to music, is a fairly pointless gimmick. A Creative T7900 7.1 surround-sound speaker set is included, but there is no dedicated sound card.

The system includes a 19" AOC LCD. This has a lower resolution than the 20" and 21" screens in the group, and its backlight was uneven. The Microsoft wireless keyboard and mouse are comfortable, but we weren't convinced by the keyboard's ergonomic design.

Anyone not satisfied by the 500GB of storage included will find more than enough drive bays to suit their needs. The Zoostorm's component and S-video in and out ports are on an external breakout box. PC Nextday provides a few extras, including a copy of the game Call of Duty 2 and a spindle of 50 DVD+R discs.

PERFORMANCE

The Zoostorm's exceptional performance can be attributed to its fast, dual-core Athlon 64 X2 4600+ processor and a hefty 2GB of RAM. It came top or near the top in nearly all our benchmarks. It scored 176 overall and a speedy 138 in our image-editing test.

Thanks to a pair of GeForce 7800GT SLI graphics cards, the Zoostorm sprinted through our Doom 3 test with a score of 134.3fps, which is the highest in the group.

VERDICT

The Zoostorm is incredibly powerful, but it's paired with a rather mediocre 19" screen. It's a good buy, but not quite the best here.

✓ Exceptional 3D and Windows performance

✗ Average-quality 19" monitor

SPECIFICATIONS AMD Athlon 64 X2 4600+, 2GB RAM, two 250GB hard disks, two 256MB nVidia GeForce 7800GT, DVD+/-RW +/-DL, DVD-ROM, 19" LCD



SCAN 3XS Luxury Home PC

RATING ★★

PRICE £1,697 inc VAT

SUPPLIER Scan Computers 08707 554747

DETAILS www.scan.co.uk

Scan's PC is built around the type of processor more usually found in servers. Despite this, it's not particularly powerful.

FEATURES

Scan has packaged the 3XS Luxury PC with a 19" ViewSonic VX924 monitor. This is difficult to adjust and has a lower resolution than the 20" and 21" screens here, but it displays clear, bright whites and vibrant colours, with only marginal banding in the greyscale test. The included Logitech Bluetooth keyboard and mouse are comfortable and feel solid and expensive.

Scan has chosen well when equipping the hard disks and optical drive. Both the 250GB Samsung SpinPoint hard disks and the NEC ND-4550A DVD writer Scan uses have won *Shopper* Best Buy awards. No speakers are included, but the system costs £50 less than most here.

PERFORMANCE

Oddly, Scan has fitted this PC with an AMD Opteron processor. These processors are more commonly found in servers. Despite being heavily overclocked, it's not particularly powerful. It scored very well in our image-editing test but poorly elsewhere, and its overall score of 140 is easily surpassed by most other PCs in the group.

Scan's system managed far better in our 3D benchmarks, where it scored a speedy 105.5fps in our Doom 3 test. Its nVidia GeForce 7800GTX graphics card produced the best results from a single-card system, but was easily eclipsed by the dual-card SLI systems from PC Nextday and Carrera. It has an SLI motherboard, though, so you could add more 3D power in future for a truly top-end SLI system.

VERDICT

Scan's 3XS is a decent system for gaming, but it's not as fast as the two dual-card systems and can't compete in Windows. Even at this slightly more affordable price, it's not a good buy.

✓ Slightly cheaper than most systems here

✗ Strange processor; limited performance; 19" display; no speakers

SPECIFICATIONS AMD Opteron 146, 1GB RAM, two 250GB hard disks, 256MB nVidia GeForce 7800 GTX, DVD+/-RW +/-DL, 19" LCD



WATFORD Aries PowerXS 6444 CS-03

RATING ★★★

PRICE £1,599 inc VAT

SUPPLIER Watford Electronics 08716 661616

DETAILS www.savastore.com

The Aries is one of the more affordable PCs in this month's group, but with uninspiring performance it's not the bargain it might seem.

FEATURES

Watford's understated CoolerMaster case feels solid and well designed and has plenty of drive bays for future expansion. You may need to fill these sooner rather than later, though, as only a single 250GB hard disk is included.

Annoyingly, there are no FireWire ports.

This and the small hard disk limit the PowerXS's usefulness for video editing. The basic wired Microsoft keyboard and mouse are adequate for most uses, but we expected better at this price.

The 20" ViewSonic display has a handy integrated four-port USB hub. The screen is sharp, but it struggled in our greyscale test. The pivot function works well as long as you use ATI's Catalyst Control Centre software.

PERFORMANCE

Like the Gladiator Titan 3, the PowerXS uses an AMD Athlon X2 3800+ processor. This is one of the slowest processors in the group. It scored a mediocre 155 in our application benchmarks, including a poor 112 in our image-editing test.

The Aries fared similarly in our Doom 3 test, where it produced 91.2fps. Only the Hoojum and Evesham PCs were slower. Its ATI Radeon X1800XT is a decent graphics card but it can't match a single nVidia GeForce 7800GTX card, let alone an SLI system. Unlike other single-card PCs in the group, this one can't be upgraded to a two-card system in future.

VERDICT

The Aries is cheaper than most PCs here, and might appeal to those who want a luxury PC on a tighter budget. We'd spend £150 more on one of the better systems, though.

✓ Comparatively inexpensive

✗ Unimpressive performance; limited hard disk space; no FireWire

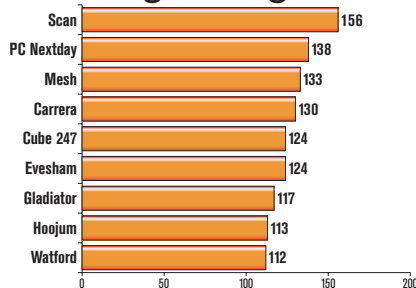
SPECIFICATIONS AMD Athlon 64 X2 3800+, 1GB RAM, 250GB hard disk, 512MB ATI Radeon X1800XT, DVD+/-RW +/-DL, 20" LCD



BENCHMARKS

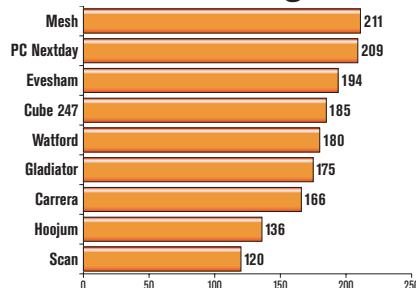
2D Performance **Shopper application tests**

Image-Editing Test



SETTINGS We run our application tests at 1,024x768 resolution and in 32-bit colour
WEB www.computershopper.co.uk

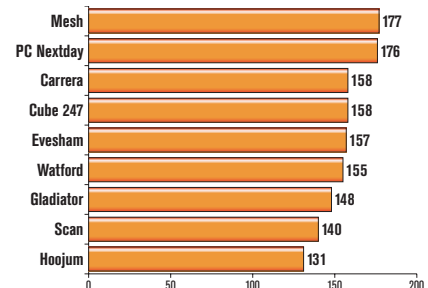
Video-Encoding Test



Shopper's 2D benchmarks show how PCs stand up to the toughest tasks Windows can throw at them. Today's PCs have no problem running office applications such as Word, so we focus our tests on areas where you could experience difficulties.

In version 1.0 there are three scripts. Our image-editing test simulates a session of photo enhancement using Paint Shop Pro, culminating in the memory-intensive composition of a panorama

Overall

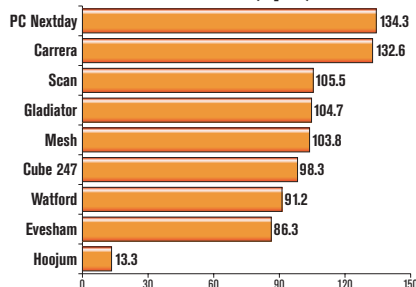


from a set of digital snaps. Encoding a short video to MPEG-2 format is extremely processor-intensive, and anyone who's interested in transferring home videos to DVD will have to tackle this. Finally, a set of MP3s is generated by ripping an audio CD.

We compiled the tests with the help of our sister magazine for performance computing, *Custom PC*. Figures are relative to a reference Evesham Athlon 64 3500+ system, which scores 100 in all tests.

3D Performance **Doom 3/3DMark03**

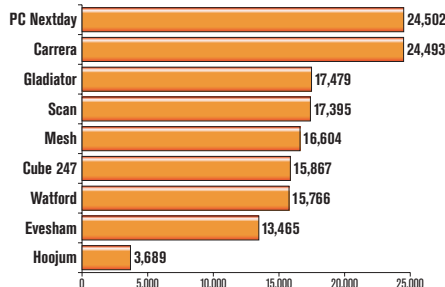
Doom 3 (fps)



SETTINGS 1,024x768 resolution, high quality, 4x AA
WEB www.doom3.com

We run a timed demo in Doom 3 to test whether a PC has the power needed to play cutting-edge 3D games with ease. A good score here means that it should cope with any graphically intense 3D game.

3DMark03

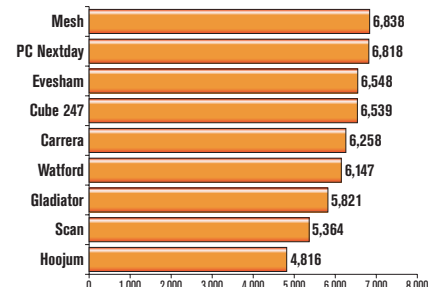


SETTINGS 1,024x768 resolution, 32-bit colour, default settings
WEB www.futuremark.com

3DMark03 is Futuremark's 3D benchmark. It comprises four game tests from four different genres. The workload is representative of games coming on to the market now.

PCMark04

PCMark04



SETTINGS 1,024x768 resolution, 32-bit colour, default settings
WEB www.futuremark.com

As well as our own benchmarks, we test all desktop and notebook PCs using Futuremark's PCMark04. You can download a free version of this benchmark from www.futuremark.com/download.

LABS VERDICT **LUXURY PCs**

This month's PC test proves that spending lots of money doesn't guarantee a great PC. Some of the systems in this test are excellent value, but others are decidedly disappointing.

The Hoojum Cubit5 is unsuitable for anything other than very casual gaming, and its performance in Windows is disappointing. If you want a tiny Media Center PC for your living room, though, it's a decent choice. The indestructible feel of the case is particularly impressive.

If you want all-out power, PC Nextday's Zoostorm Advanced PC is a great system. Its dual-graphics card SLI setup

produces the fastest 3D graphics here, and a very powerful dual-core processor makes it incredibly fast in Windows applications, too. The only disappointment is its average-quality 19" monitor.

If you don't mind sacrificing a little 2D speed for a larger monitor, Carrera's Octan Ultimate is a great buy. It has a supercharged SLI graphics system, and its dual-core processor provides plenty of power for even the most demanding Windows tasks. With an excellent 20" NEC display and no real faults, it's a deserving winner of our Best Buy award.

CARRERA Octan Ultimate CS-03





MANUFACTURER	CARRERA	CUBE 247	EVESHAM	GLADIATOR
Model	Octan Ultimate CS-03	Aurora ST2	Axis 4400+ Fireball	Titan 3 3800 Delux V2 (Secure System)
Rating	★★★★★	★★	★★★	★★★
Processor	AMD Athlon 64 X2 4400+	AMD Athlon 64 X2 4400+	AMD Athlon 64 X2 4400+	AMD Athlon X2 3800+
Processor speed	2.2GHz	2.2GHz	2.2GHz	2GHz
Processor socket	Socket 939	Socket 939	Socket 939	Socket 939
Level I cache	2x 128KB	2x 128KB	2x 128KB	2x 128KB
Level II cache	2x 1MB	2x 1MB	2x 1MB	2x 512KB
Memory installed	1GB	2GB	2GB	1GB
Memory type	PC3200	PC3200	PC3200	PC3200
Maximum memory	4GB	4GB	4GB	4GB
Motherboard	MSI K8N SLI-FI	EQS A72K9-CF	MSI MS-7194	Gigabyte K8N-SLI
Motherboard chipset	nVidia nForce4 SLI	Radeon Xpress 200 RD480-SB450	ATI Radeon Xpress 200 CrossFire	nVidia nForce4 SLI
Memory bus speed	200MHz	200MHz	200MHz	200MHz
BIOS	Phoenix	Phoenix	AMI	Phoenix
PORTS				
USB2 ports (front/rear)	2/6	3/8	2/4	2/4
FireWire ports (front/rear)	1/1	2/0	1/1	0/0
Networking	10/100/1,000	2x 10/100/1,000	10/100/1,000	10/100/1,000
Legacy ports	Parallel, PS/2, serial	Parallel, 2x PS/2	Parallel, PS/2, serial	Parallel, PS/2, serial
INTERNAL EXPANSION				
Case	Midi tower	Tower	Midi tower	Tower
Case size HxWxD	495x235x460mm	600x263x546mm	435x222x495mm	522x205x510mm
PCI (free)	3(0)	3(1)	2(1)	2(1)
PCI-E x1 (free)	1(0)	1(0)	2(2)	1(0)
PCI-E x16 (free)	2(0)	2(1)	2(1)	2(1)
AGP (free)	0(0)	0(0)	0(0)	0(0)
Serial ATA (free)	4(1)	4(2)	4(3)	9(4)
Memory (free)	4(2)	4(2)	4(2)	4(2)
Drive bays 3½" (free)	5(2)	3(1)	5(4)	4(4)
Drive bays 5¼" (free)	5(3)	7(3)	4(2)	5(1)
HARD DISK				
Model	2x Maxtor MaxLine Plus II 7Y250M0	2x Seagate Barracuda 7200.8 ST3250823AS	Western Digital Caviar SE WD3200JD	3x Hitachi Deskstar T7K250
Interface	SATA 150	SATA 150	SATA 150	SATA 300
Capacity	2x 250GB (RAID 0)	2x 250GB (RAID 0)	320GB	3x 160GB (RAID 3)
Spin speed	7,200rpm	7,200rpm	7,200rpm	7,200rpm
GRAPHICS				
Technology	PCI Express	PCI Express	PCI Express	PCI Express
Graphics card	2x Inno3D 7800GT G5G4S 256MB SLI	Sapphire ATI Radeon X1800XT	GeCube X1800XL	Asus 7800GTX Extreme
Graphics chipset	nVidia GeForce 7800GT SLI	ATI Radeon X1800XT	ATI Radeon X1800XL	nVidia GeForce 7800GTX
Graphics memory	256MB	512MB	256MB	256MB
Graphics/video ports	4x DVI, S-video VIVO	2x DVI, S-video	2x DVI, S-video	2x DVI, S-video
SOUND				
Sound card	Creative Sound Blaster Audigy 4	Creative Sound Blaster Audigy 4	RealTek ALC880	RealTek ALC850
Sound card outputs	7.1 line out, coaxial S/PDIF out	7.1 line out	7.1 line out, coaxial and optical S/PDIF out	7.1 line out, coaxial S/PDIF out
Speakers	Creative T7900 7.1	Creative T7900 7.1	Creative T7900 7.1	Creative I-Trigue 3500 2.1
REMOVABLE DRIVES				
Floppy drive 3½"	Yes	Yes	No	Yes
Memory card reader	No	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	No	CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive
Optical drives	LG GSA-4167B (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 6X DVD+R DL, 4X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD), Sony DDU1615-B2 (16X DVD, 48X CD)	NEC ND-4550A (16X DVD-R, 16X DVD+R, 8X DVD-RW, 8X DVD+RW, 6X DVD-R DL, 8X DVD+R DL, 48X CD-R, 32X CD-RW, 48X CD, 16X DVD), LG GDR8164B (16X DVD, 32X CD)	Sony DW-Q30A (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 8X DVD+R DL, 48X CD-R, 24X CD-RW, 16X DVD, 48X CD), Sony DDU1615-B2 (16X DVD, 48X CD)	Lite-On SHW-16H5S (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 6X DVD+R DL, 4X DVD-R DL, 4X DVD-R DL, 48X CD-R, 24X CD-RW, 16X DVD, 48X CD)
DISPLAY				
Size and technology	20" LCD	19" LCD	21" LCD	20" widescreen LCD
Model	NEC 2070NX	GNRTS900H	NEC 2170NX	Belinea 102035W
Response time	16ms	12ms	16ms	8ms
Inputs	D-sub, DVI	D-sub, DVI	D-sub, DVI	D-sub, DVI
OTHER HARDWARE				
Modem	No	No	No	No
Keyboard	Microsoft Wireless Multimedia Keyboard 1.0A	Microsoft Wireless Multimedia Keyboard 1.0A	Logitech Cordless Desktop Rechargeable Keyboard	Logitech UltraX Cordless Desktop Optical
Mouse	Microsoft Wireless Optical Mouse 2.0A	Microsoft Wireless Optical Mouse 2.0A	Logitech Cordless Rechargeable Optical Mouse	Logitech UltraX Cordless Desktop Optical
Keyboard/mouse rating	★★★	★★★	★★★	★★★★
Extras				Revo Netcell 3 port RAID card Gamers Edition, Vantec EZ Swap SATA removable hard disk rack
SOFTWARE				
Software included	Microsoft Works 8, CyberLink PowerDVD 5, Roxio Easy CD Creator Suite 7, F-Secure 2005	Bullguard Internet Security 5, CyberLink PowerDVD 6, Ahead Nero 6	Microsoft Works 8, Roxio Easy Media Creator Basic 7, CyberLink PowerDVD 6, Bullguard Anti-virus 5	Ahead Nero 6
Operating system	Windows XP Home	Windows XP Home	Windows XP Media Center Edition 2005	Windows XP Home
Operating system restore option	Restore CD	Windows CD	Restore CD	Windows CD
BUYING INFORMATION				
Warranty (parts and labour)	One year onsite	Three years RTB	Two years onsite, one year RTB	One year onsite, one year RTB
Tech support times	9am-5pm Mon-Fri, 9am-1pm Sat	9am-6pm Mon-Fri	9am-5.30pm Mon-Sat	10am-6pm Mon-Fri
Company founded	1972	1999	1984	1999
Tech support staff	20	7	83	9
Employees	130	15	416	16
Price including delivery (inc VAT)	£1,750	£1,750	£1,750	£1,750
Price including delivery (ex VAT)	£1,489	£1,489	£1,489	£1,489
Contact	Watford Electronics	Cube Enterprises	Evesham Technology	Gladiator Computers
Phone	08716 661616	08702 421179	08701 609500	08456 444666
Web	www.savastore.com	www.cube247.co.uk	www.evesham.com	www.gladiatorcomputers.com



HOOJUM Cubit5	MESH XTreme Beast	PC NEXTDAY Zoostorm 5-8501 Advanced PC	SCAN 3XS Luxury Home PC	WATFORD Aries PowerXS 6444 CS-03
★★★	★★★★	★★★★★	★★	★★★
Intel Pentium 4 650 3.4GHz Socket 775 16KB 2MB 1GB PC3200 4GB Shuttle FB83V10 Intel i915P/G 200MHz Phoenix	AMD Athlon 64 X2 4600+ 2.4GHz Socket 939 2x 128KB 2x 512KB 2GB PC3200 4GB Asus A8N-SLI Deluxe nVidia nForce4 SLI 200MHz Phoenix	AMD Athlon 64 X2 4600+ 2.4GHz Socket 939 2x 128KB 2x 512KB 2GB PC3200 4GB ECS KN1 SLI Extreme nVidia nForce4 SLI 200MHz Phoenix	AMD Opteron 146 2.9GHz (Overclocked) Socket 939 64KB 1MB 1GB PC4400 4GB Asus A8N-SLI Deluxe nVidia nForce4 SLI 200MHz AMI	AMD Athlon 64 X2 3800+ 2GHz Socket 939 2x 128KB 2x 512KB 1GB PC3200 4GB ECS nForce 4-A939 nForce 4 200MHz Phoenix
2/2 1/1 10/100/1,000 Serial, 2x PS/2	2/6 1/1 2x 10/100/1,000 Parallel, 2x PS/2	3/4 1/0 2x 10/100/1,000, 802.11b/g Serial, 2x PS/2	2/6 1/2 2x 10/100/1,000 Parallel, 2x PS/2	2/4 0/0 10/100/1,000 Parallel, 2x PS/2, serial
Small form factor 174x214x294mm 1(0) 0(0) 1(0) 0(0) 2(1) 2(0) 1(0) 0(0)	Midi tower 436x225x540mm 3(0) 2(0) 2(1) 0(0) 8(6) 4(2) 5(0) 4(1)	Midi tower 435x202x500mm 3(1) 1(0) 2(0) 0(0) 6(3) 4(2) 5(3) 5(3)	Midi tower 442x208x485mm 4(0) 1 (1) 1 (0) 0(0) 4(2) 4(2) 4(0) 5(3)	Midi tower 435x202x480mm 3(1) 2(2) 1(0) 0(0) 4(3) 4(2) 5(3) 5(4)
Seagate Barracuda 7200.9 ST3500641AS SATA 300 500GB 7,200rpm	2x Maxtor DiamondMax 10 6B200M0/ 6L200M0 SATA 150 2x 200GB (RAID 0) 7,200rpm	2x Western Digital Caviar SE16 WD2500KS- 00MJB0 SATA 150 2x 250GB (RAID 0) 7,200rpm	2x Samsung SpinPoint SP2504C SATA 300 2x 250GB (RAID 0) 7,200rpm	Western Digital WD2500JD-00HBB0 SATA 150 250GB 7,200rpm
PCI Express XFX 6600 Passive nVidia GeForce 6600 128MB DVI, D-sub, S-video	PCI Express nVidia GeForce 7800GTX nVidia GeForce 7800GTX 256MB 2x DVI, S-video	PCI Express 2x Inno3D 7800GT 256MB SLI nVidia GeForce 7800GT SLI 256MB 4x DVI, S-video	PCI Express XFX 7800GTX nVidia GeForce 7800GTX 256MB 2x DVI, S-video	PCI Express ATI Radeon X1800XT ATI Radeon X1800XT 512MB 2x DVI, S-video VIVO
RealTek ALC658 7.1 line out, optical S/PDIF out Altec Lansing 5100 5.1	Creative Sound Blaster X-Fi Xtreme Music 7.1 line out, coaxial S/PDIF out Creative T7900 7.1	RealTek ALC850 7.1 line out, coaxial S/PDIF out Creative T7900 7.1	Creative Sound Blaster X-Fi Xtreme Music 7.1 line out, coaxial S/PDIF out None	RealTek ALC655 5.1 line out, coaxial S/PDIF out Creative P5800 5.1
No CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	Yes No	No CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	Yes CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive	Yes CompactFlash, Secure Digital, MultiMedia Card, Memory Stick, Smart Media, MicroDrive
Panasonic UJ-845-B (8X DVD+R, 8X DVD-R, 4X DVD+RW, 4X DVD-RW, 2.4X DVD+R DL, 24X CD-R, 16X CD-RW, 8X DVD, 24X CD)	Sony DW-Q28A (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 4X DVD-R DL, 48X CD-R, 24X CD-RW, 16X DVD, 48X CD), Sony DDU1615-B2 (16X DVD, 48X CD)	NEC ND-4550A (16X DVD-R, 16X DVD+R, 6X DVD-RW, 8X DVD+RW, 6X DVD-R DL, 8X DVD+R DL, 48X CD-R, 32X CD-RW, 48X CD, 16X DVD), Sony DDU1615-B2 (16X DVD, 48X CD)	NEC ND-4550A (16X DVD-R, 16X DVD+R, 6X DVD-RW, 8X DVD+RW, 6X DVD-R DL, 8X DVD+R DL, 48X CD-R, 32X CD-RW, 48X CD, 16X DVD), Sony DDU1615-B2 (16X DVD, 48X CD)	LG GSA-4167B (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 6X DVD+R DL, 4X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD)
19" LCD Sony SDM-HS95P 12ms D-sub, DVI	20" widescreen LCD Philips 200W6CS 16ms D-sub, DVI	19" LCD AOC LM928 8ms D-sub, DVI	19" LCD ViewSonic VX924 5ms D-sub, DVI	20" LCD ViewSonic VP201b 16ms D-sub, DVI
No Logitech Cordless Desktop MX 5000 Laser	Yes Logitech Cordless Desktop Rechargeable Keyboard	Yes Microsoft Wireless Optical Desktop Comfort Edition	No Logitech Cordless Desktop MX 5000 Laser	No Microsoft basic optical mouse 1.0A
Logitech Cordless Desktop MX 5000 Laser	Logitech Cordless Rechargeable Optical Mouse	Microsoft Wireless Optical Desktop Comfort Edition	Logitech Cordless Desktop MX 5000 Laser	Microsoft basic keyboard 1.0A
★★★★ Media Center remote control, Hauppauge WinTV Nova-T TV tuner card	★★★★	★★★ 2x Genius MaxFire G-08XU USB gamepads, Speed i640 webcam, Datawrite 4.7GB DVD+R 50 pack	★★★★	★★★ Four-port USB hub on monitor
Microsoft Works 8.5	Microsoft Works 8.5, CyberLink PowerDVD 6, CyberLink Power2Go 4, CyberLink PowerProducer 3, CyberLink PowerDirector 3, CyberLink PowerBackup 1.1, CyberLink PowerCinema 4, CyberLink Medi@Show 3	Ahead Nero 6	Microsoft Works 8.5	Microsoft Works 8, CyberLink PowerDVD 5, Panda Antivirus Titanium 2004, Roxio Easy CD Creator Suite 7
Windows XP Media Center Edition 2005 Windows CD	Windows XP Home Restore CD	Windows XP Home Restore CD	Windows XP Home Windows CD	Windows XP Home Restore CD and partition
One year onsite 9am-5.30pm Mon-Fri, 10.30am-4pm Sat 1987 30 150 £1,750 £1,489 Scan Computers 08707 554747 www.scan.co.uk	Two years onsite, one year RTB 9am-5.30pm Mon-Fri 1987 42 275 £1,750 £1,489 Mesh Computers 08700 464747 www.meshcomputers.com	One year onsite 9am-5.30pm Mon-Fri 1993 3 68 £1,750 £1,489 PC Nextday sales@pcnextday.co.uk www.pcnextday.co.uk	One year onsite 9am-5.30pm Mon-Fri, 10.30am-4pm Sat 1987 30 150 £1,697 £1,445 Scan Computers 08707 554747 www.scan.co.uk	One year onsite 9am-5pm Mon-Fri, 9am-1pm Sat 1972 20 130 £1,599 £1,361 Watford Electronics 08716 661616 www.savastore.com